

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

Listing of claims:

Claim 1 (Currently Amended): An illegal access discriminating apparatus that is placed in advanced of a user authentication system using biometrics which needs user information comprised of ID information and organic informational ~~A service providing system~~ comprising:

~~a service providing apparatus in which organic information of the user is previously registered in correspondence to ID information, ID information and organic information based on an authentication demand of the user are inputted, the registered organic information corresponding to the inputted ID information is read out and collated, and when they coincide, use of the apparatus is permitted; and~~

~~an illegal access discriminating apparatus for discriminating an illegal access by an attacker to said service providing apparatus, wherein~~

~~said illegal access discriminating apparatus comprises:~~

~~an inputting and storing unit for inputting and~~ a first storing unit ~~for temporarily storing the latest pair of~~ ID information and organic information inputted by a user when the user is being authenticated, ~~based on the authentication demand which said service providing system received from the user,~~

~~a second use information~~ storing unit for storing pairs of ID information and organic information which were inputted by arbitrary users within predetermined time, wherein said ID

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information and organic information is transferred from said first storing unit to said second storing unit after each authentication ~~based on the authentication demand which the service providing system received in the past from the user within a predetermined time;~~

a comparing and collating unit for comparing and collating the latest inputted ID information and organic information with all of ID information and organic information stored in said second storing unit which were inputted and not previously registered in the past; and

a control unit for discriminating ~~an~~ authentication demand by ~~the~~ an attacker by counting the number of said comparing-collating results which satisfy predetermined conditions and judging authentication demand as the one by an attacker if said counted number exceeds predetermined value ~~on the basis of an output of said comparing and collating unit and notifying said service providing apparatus of it.~~

Claim 2 (Cancelled).

Claim 3 (Original): An apparatus according to claim 1, wherein said control unit determines that there is the authentication demand by the illegal access person in the case where the ID information does not coincide and the organic information coincides or the case where the ID information coincides and the organic information does not coincide on the basis of the output of said comparing and collating unit.

Claim 4 (Original): An apparatus according to claim 1, wherein said storing unit stores a telephone number serving as a transmitting source, a terminal position such as a network address, and an input time in correspondence to the ID information and organic information which were inputted in the past, and

said control unit determines that there is the authentication demand by the illegal access person in the case where the comparison result by said comparing and collating unit between the inputted ID information and the past ID information inputted from a same terminal position within a predetermined time indicates dissidence.

Claim 5 (Original): An apparatus according to claim 1, wherein said control unit discriminates whether the past ID information has a serial number for the inputted ID information or not and, when it is determined that the past ID information has the serial number, said control unit determines that there is the authentication demand by the illegal access person at a predetermined designated number of times.

Claim 6 (Original): An apparatus according to claim 1, wherein when the inputted organic information and the organic information which was inputted in the past coincide, said control unit detects a combination in which the organic information coincides and the ID information differs, and when the number of said combinations reaches a predetermined number, said control unit determines that there is the authentication demand by the illegal access person.

Claim 7 (Original): An apparatus according to claim 1, wherein said comparing and collating unit comprises:

an ID information comparing unit for comparing the inputted ID information and the ID information which was inputted in the past and generating a signal indicative of coincidence or dissidence; and

an organic information collating unit for comparing the inputted organic information and the organic information which was inputted in the past, generating a signal indicative of coincidence of the organic information in the case where a value of a predetermined coincidence degree or more is obtained, and generating a signal indicative of dissidence of the organic information in the case where a value less than said predetermined coincidence degree is obtained.

Claim 8 (Original): An apparatus according to claim 1, further comprising a timer unit for measuring a time, and wherein the ID information and organic information which were inputted in the past after the elapse of a predetermined time from the storage on the basis of time information measured by said timer unit are erased and excluded from targets of the comparison and collation.

Claim 9 (Original): An apparatus according to claim 1, wherein

said storing unit stores a telephone number serving as a transmitting source and a terminal position such as a network address or the like together with the ID information and organic information which were inputted in the past, and

said comparing and collating unit compares and collates the inputted ID information and organic information with the ID information and organic information which were inputted in the past from a same terminal position.

Claim 10 (Original): An apparatus according to claim 1, further comprising:

an authentication demand terminal address recording unit for recording the number of times of authentication demand every terminal address; and

a same terminal access detecting unit for detecting that the authentication demand of a predetermined number or more has been performed within a predetermined time with reference to said authentication demand terminal address, activating said comparing and collating unit and said control unit, and allowing an illegal access to be discriminated.

Claim 11 (Original): An apparatus according to claim 1, wherein when it is determined that there is the authentication demand by the illegal access person, said control unit automatically notifies an administrator of the service providing system of a result of said discrimination.

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Claim 12 (Currently Amended): An illegal access discriminating method that is placed in advanced of a user authentication system using biometric which needs user information comprised of ID information and organic information, comprising:

~~a service providing step of previously registering organic information of the user in correspondence to ID information, inputting ID information and organic information based on an authentication demand of the user reading out the registered organic information corresponding to the inputted ID information and collating, and when they coincide, permitting use of the apparatus; and~~

~~an illegal access discriminating step of discriminating an illegal access by an attacker to said service providing apparatus, wherein~~

~~said illegal access discriminating step comprises:~~

~~an inputting and storing step of inputting and a first storing step of temporarily storing the latest pair of ID information and organic information inputted by a user when the user is being authenticated; based on the authentication demand which said service providing system received in the past from the user,~~

~~a ~~use information~~ second storing step of storing pairs of ID information and organic information which were inputted by arbitrary users within predetermined time, wherein said ID information and organic information is transferred from said first storing unit to said second storing unit after each authentication based on the authentication demand which the service providing system received in the past from the user;~~

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a comparing and collating step of comparing and collating the latest inputted ID information and organic information with all of ID information and organic information stored in said second storing step which were inputted ~~and not previously registered~~ in the past; and

a control step of discriminating an authentication demand by an attacker by counting the number of said comparing-collating results which satisfy predetermined conditions and judging authentication demand as the one by an attacker if said counted number exceeds predetermined value ~~illegal access person on the basis of an output in said comparing and collating step and notifying said service providing apparatus of it.~~

Claim 13 (Cancelled).

Claim 14 (Original): A method according to claim 12, wherein in said control step, it is determined that there is the authentication demand by the illegal access person in the case where the ID information does not coincide and the organic information coincides or the case where the ID information coincides and the organic information does not coincide on the basis of the output in said comparing and collating step.

Claim 15 (Original): A method according to claim 12, wherein

in said storing step, a telephone number serving as a transmitting source, a terminal position such as a network address, and an input time in correspondence to the ID information and organic information which were inputted in the past are stored, and

in said control step, it is determined that there is the authentication demand by the illegal access person in the case where the comparison result in said comparing and collating step between the inputted ID information and the past ID information inputted from a same terminal position within a predetermined time indicates dissidence.

Claim 16 (Original): A method according to claim 12, wherein in said control step, whether the past ID information has a serial number for the inputted ID information or not is discriminated and, when it is determined that the past ID information has the serial number, it is determined that there is the authentication demand by the illegal access person at a predetermined designated number of times.

Claim 17 (Original): A method according to claim 12, wherein in said control step, when the inputted organic information and the organic information which was inputted in the past coincide, a combination in which the organic information coincides and the ID information differs is detected, and when the number of said combinations reaches a predetermined number, it is determined that there is the authentication demand by the illegal access person.

Claim 18 (Original): A method according to claim 12, wherein said comparing and collating step comprises:

an ID information comparing step of comparing the inputted ID information and the ID information which was inputted in the past and generating a signal indicative of coincidence or dissidence; and

an organic information collating step of comparing the inputted organic information and the organic information which was inputted in the past, generating a signal indicative of coincidence of the organic information in the case where a value of a predetermined coincidence degree or more is obtained, and generating a signal indicative of dissidence of the organic information in the case where a value less than said predetermined coincidence degree is obtained.

Claim 19 (Original): A method according to claim 12, further comprising a timer step of measuring a time, and wherein the ID information and organic information which were inputted in the past after the elapse of a predetermined time from the storage on the basis of time information measured in said timer step are erased and excluded from targets of the comparison and collation.

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Claim 20 (Original): A method according to claim 12, wherein

in said storing step, a telephone number serving as a transmitting source and a terminal position such as a network address or the like are stored together with the ID information and organic information which were inputted in the past, and

in said comparing and collating step, the inputted ID information and organic information with the ID information and organic information which were inputted in the past from a same terminal position are compared and collated.

Claim 21 (Original): A method according to claim 12, further comprising:

an authentication demand terminal address recording step of recording the number of times of authentication demand every terminal address; and

a same terminal access detecting step of detecting that the authentication demand of a predetermined number or more has been performed within a predetermined time with reference to said authentication demand terminal address, activating said comparing and collating step and said control step, and allowing an illegal access to be discriminated.

Claim 22 (Original): A method according to claim 12, wherein in said control step, when it is determined that there is the authentication demand by the illegal access person, a result of said discrimination is automatically notified to an administrator of the service providing system.